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July 23, 2004

**VIA E-FILE and VIA FACSIMILE**

Hon. Edward M. Chen  
United States District Court  
Northern District of California  
450 Golden Gate Avenue  
San Francisco, CA 94102

Re: Ricoh Co., Ltd. v. Aeroflex, et al. – No. C-03-4669 MJJ (EMC)  
Synopsis, Inc., v. Ricoh Co., Ltd. – No. C-03-2289 MJJ (EMC)

Dear Magistrate Chen:

We represent Ricoh in the above-captioned actions, and submit this response to the July 22, 2004 letter submitted by counsel for Synopsis, the Aeroflex et al. defendants, and Dr. Thaddeus J. Kowalski (collectively, "Defendants"). We regret that Defendants refused to cooperate in the submission of a joint letter.<sup>1</sup>

Defendants' request for a protective order should be denied for the following reasons:

Under the pretrial schedule (D.I. 191)<sup>2</sup> and Patent L.R. 4-4, discovery relating to claim construction issues, including expert depositions, must be completed by August 12, 2004. Defendants have made clear that their claim construction theories are dependent upon extensive extrinsic evidence, and especially the declaration of their testifying expert, Dr. Kowalski. Defendants' counsel had first suggested on June 14, 2004, that they may rely on Dr. Kowalski's testimony. During a meet and confer on July 8, 2004, concerning the joint claim construction submission, counsel for Defendants made clear that they were going to submit a report from Dr. Kowalski with their portion of the joint claim construction, then due on July 13. During that July 8 conference, Defendants' counsel agreed to accept service of a subpoena directed to Dr. Kowalski, and the subpoena was served the next day. (Ex. 2, Weinstein 7/9/04 letter to Moller.)

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<sup>1</sup> Defendants originally proposed a joint submission today (Friday, July 23, 2004) and proposed to provide Ricoh with their written statement on Wednesday (see Def. Ex. D), but failed to send their draft as promised. See Ex. 1, Brothers 7/22/04 letter to Mavrakakis and Whitt. During the meet and confer on Thursday, July 22, Defendants changed their position, insisted the letter be filed that day, and demanded Ricoh's written position within three hours and without seeing Defendants' written statement. When Ricoh refused to agree to this unreasonable demand, Defendants' counsel stated they would not comply with the Court's instructions that the parties submit a joint letter, and would submit an *ex parte* letter. They also refused to e-mail the final version of their letter and exhibits to Ricoh's counsel.

<sup>2</sup> All Docket Item cites are to Ricoh Co., Ltd. v. Aeroflex, et al. – No. C-03-4669 MJJ (EMC).

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Hon. Edward M. Chen

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Counsel also agreed to make Dr. Kowalski available for a deposition on August 11, 2004. (*Id.*)<sup>3</sup> On July 16, Defendants filed and served a 25 page expert declaration from Dr. Kowalski. (Ex. 3.) The Kowalski declaration comprises 73 numbered paragraphs and attaches 36 exhibits numbering more than 700 pages. All of these documents have been placed before the Court and incorporated into Defendants' claim constructions and hence have been placed in issue by the Defendants. (See D.I. 220-226.)

Defendants do not dispute that, under Fed. R. Civ. P. 26(b)(4), Ricoh is entitled to depose Dr. Kowalski. As of July 8, all parties understood that an expert -- such as Dr. Kowalski -- would be obligated to produce his relevant documents and sit for a deposition. Indeed, Defendants concede that at that time they "would not have opposed the taking of expert discovery for the purposed of claim construction." (Def. 7/22/04 letter to Court, D.I. 227, at p. 2.)

Defendants apparently now believe that they should not be obligated to comply with the subpoena, or with Fed. R. Civ. P. 26(b)(4), or with patent L.R. 4-4, because, during a telephone hearing with Judge Jenkins on July 14, the Court said that, unless it later ruled otherwise, the Court would not receive extrinsic evidence to construe the claims of the patent-in-suit. (Ex. 4, 7/14/04 Hearing Tr., at 8 ("I have never and don't anticipate having live witness testimony from any expert at a claims construction hearing."); *id.* at 12 ("I'm not going to receive any expert testimony on construction of these terms.")) Notably, Defendants do not cite, quote, or provide the transcript of that hearing to the Court, because it directly contradicts their arguments.

During the hearing, when Defendants insisted on submitting expert testimony in spite of the Court's statements, Judge Jenkins explained that, if a party submitted extrinsic evidence such as an expert declaration, then expert depositions should be taken prior to the claim construction hearing, and the Court would thereafter decide whether it would rely on any extrinsic evidence:

[I]f you feel that there's going to be a need for expert testimony, you disclose the experts who are going to testify with respect to the claims in dispute. You normally take those depositions prior in time so each side has had a chance to examine those experts. Then you submit declarations, written declarations, which I then will determine whether I can consider or not, but no live testimony, no live examination. That's done in depositions prior in time. . . . It's not efficient to take live witness testimony in a claims construction hearing when you folks can do that up front. . . . We wouldn't bring those people in for live witness testimony on top of what they've already put in their reports. I just don't know whether that's going to be needed not, you know. It's difficult for me to tell you that, but I can tell you, despite what the

<sup>3</sup> Defendants claim that the Kowalski subpoena is improper because of the noticed location the deposition. Defendants never conditioned their acceptance of the subpoena upon the location of the deposition. As reflected in the cover letter, counsel for the parties never discussed a location for the deposition, and Ricoh noticed the deposition in Dr. Kowalski's home district in New Jersey. *See* Ex. 2.

Hon. Edward M. Chen  
July 23, 2004  
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local rule says, that the exchange of expert opinions and reports and depositions ought to occur prior in time.

(Ex. 4, 7/14/04 Hearing Tr., at p. 8-11.) Defendants insisted that they be permitted to submit their extrinsic evidence "to make my record", and the Court responded: "You are the one that's setting this up by doing what you think the law says you have a right do and you need to do." (*Id.* at p. 14.) When Defendants' counsel repeatedly stated its intention to file extrinsic evidence, the Court responded: "I'm not going to consider it in the first instance, but you can submit it." (*Id.* at 15.) Contrary to Defendants' letter, Judge Jenkins in no way intimated that, if Defendants insisted on submitting expert testimony, Ricoh would be precluded from taking appropriate discovery contemplated by Fed. R. Civ. P. 26(b)(4) and Patent L.R. 4-4. Instead, the Court repeatedly stated that, if a party elected to rely upon extrinsic expert evidence for claim construction, then discovery of any such expert should be done prior to the Markman hearing.

Based upon Judge Jenkins' ruling, Ricoh did not submit any extrinsic evidence with its portion of the joint claim construction statement (D.I. 220), which was filed on July 16. Defendants, however, decided to disregard the Court's guidance, and they submitted to the Court and repeatedly relied upon Dr. Kowalski's declaration as well as a large volume of additional extrinsic evidence. (D.I. 221-226) Ricoh expressly reserved its right to seek discovery of this extrinsic evidence. (D.I. 220, at p. 2)<sup>4</sup>

Defendants made a deliberate decision to file and rely upon an expert report knowing Judge Jenkins would allow expert discovery; yet now having put the materials before the Court, they seek to preclude discovery on the expert report that is the lynchpin of their claim construction theories. Such discovery is expressly contemplated in the pretrial schedule and Patent Local Rules. Before Defendants filed and served the Kowalski declaration and other extrinsic evidence, Judge Jenkins placed them on notice that if they filed such extrinsic evidence, the Court would require expert discovery. (Ex. 4, at pp. 8-12.) Before Defendants served the extrinsic evidence, Ricoh told them that if they submitted such extrinsic evidence, Ricoh would seek appropriate discovery. (D.I. 220, at p. 2.) Having had fair notice, Defendants chose to proceed. Now having submitted their expert report to the Court, Defendants cannot shield their expert from discovery. The Defendants made their decision and should live with the consequences.

Defendants' assertion that permitting discovery at this stage would be improper because it may expose their expert to multiple depositions is baseless, for at least six reasons. First, Defendants have placed at issue the opinions of Dr. Kowalski, and under Judge Jenkins' procedures, Ricoh is entitled to take his deposition. Second, Ricoh does not seek multiple depositions of Dr. Kowalski, but one deposition. Third, there would be no basis for a subsequent deposition unless Dr. Kowalski submitted a subsequent expert report, so Defendants control the process. Fourth, there is little unexpected burden associated with expert depositions, as they are the expected result of expert reports. Fifth, deferring the deposition can only serve to delay

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<sup>4</sup> If the Court decides that it will consider Defendants' extrinsic evidence, then Ricoh reserves its right to submit its own expert declaration and other extrinsic evidence.

Hon. Edward M. Chen  
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unnecessarily the claim construction hearing. Finally, any additional expert discovery relating to claims construction would be under the direct guidance of the Court.

Not only is Defendants' motion inconsistent with Rule 26(b)(4) and Patent L.R. 4-4, but it is contrary to the guidance of this Court's June 17 Order, which compelled discovery on the claim terms at issue:

At this juncture, unless and until the parties reach an agreement to take these claims out of the litigation, this Court must assume that they will be subject to the claims construction, and hence the work in preparation therefore cannot be delayed lest the entire case schedule be disrupted.

(6/17/04 Order, D.I. 204, at p. 2, lines 7-10.) If anything, providing discovery of Dr. Kowalski and the extrinsic evidence is even more compelling, because the parties have narrowed their focus to claims 13-17 of the '432 patent, which is the exclusive focus of Dr. Kowalski's report, and because Judge Jenkins has ordered that such discovery be completed prior to the Markman hearing.

Also improper is Defendants' attempt to get a second bite at the apple by refusing to serve any objections to Ricoh's subpoena, and reserving the right to seek yet another protective order on that basis. Defendants' objections were due by no later than today, July 23, but they have failed to object. Defendants could have submitted any objections prior to presenting the issue to the Court, and their failure to make any objections constitutes a waiver of those objections. If this Court sustains the subpoena, Defendants should be obligated to produce all documents related to the report, including all communications with Defendants and their counsel. In short, having elected to place Dr. Kowalski's opinions at issue and submit them to the Court, Defendants cannot preclude Ricoh from obtaining expert discovery as contemplated by the Federal and Patent Local Rules.

We are available for a telephonic hearing at the Court's pleasure.

Very truly yours,

DICKSTEIN SHAPIRO MORIN &  
OSHINSKY

By: /s/ Kenneth W. Brothers  
Gary M. Hoffman  
Kenneth W. Brothers (202) 429-2184  
Attorneys for Ricoh Company, Ltd.

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN FRANCISCO DIVISION

RICOH COMPANY, LTD.,

Plaintiff,

vs.

AEROFLEX INCORPORATED, et al.,

Defendants

CASE NO. C-03-4669-MJJ (EMC)

CASE NO. C-03-2289-MJJ (EMC)

SYNOPSYS, INC.,

Plaintiff,

vs.

RICOH COMPANY, LTD.,

Defendant

**[PROPOSED] ORDER REGARDING  
SUBPOENA ON DR. THADDEUS  
KOWALSKI**

Upon consideration of the Parties' respective letters dated July 22 and 23, 2004, and the telephonic status conference conducted on \_\_\_\_\_, it is HEREBY ORDERED:

THAT Dr. Kowalski shall produce documents and be deposed in accordance with the subpoena served by Ricoh on 7/9/04.

IT IS SO ORDERED.

Dated: \_\_\_\_\_

\_\_\_\_\_  
HON. EDWARD M. CHEN



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July 22, 2004

**BY FACSIMILE AND U.S. MAIL**  
**(650) 463-8400**

Tom Mavrakakis, Esq.  
Jayna R. Whitt, Esq.  
Howrey Simon Arnold & White LLP  
301 Ravenswood Ave.  
Menlo Park, CA 94025

Re: *Synopsys, Inc. v. Ricoh Company, Ltd.*  
*Ricoh Company, Ltd v. Aeroflex Inc., et al.*  
Our Ref.: R2180.0171

Dear Counsel:

We are in receipt of Ms. Whitt's letter of July 21, 2004, to Mike Weinstein, which arrived yesterday evening after business hours in Washington, D.C. We are further advised that Ms. Whitt left a voicemail for Mr. Weinstein sometime after 7 p.m. yesterday evening. Both of your communications anticipated a response 'that afternoon.' Mr. Weinstein presently is out of the office. Ms. Whitt's letter and phone call continues an unfortunate practice by your office of attempting to take advantage of the time difference between the West and East coasts.

Magistrate Judge Chen has directed the parties to have a verbal meet and confer before presenting him with discovery disputes, and no such meet and confer has occurred, as Ms. Whitt concedes in her letter. We do not intend to disregard the Court's instructions, as you demand that we do. We understand that Ms. Whitt is away from her office today and tomorrow and in light of that, we are agreeable to having a meet and confer at any reasonable time today or tomorrow between 9:30 a.m. and 5 p.m. ET, upon 2 hours advance notice. Please call my direct line at 202-429-2184.

We note that the return date for the documents is scheduled for July 30, and the agreed-upon date for the deposition is August 11, so we do not agree that a letter must be sent to Judge Chen by tomorrow. If the letter is submitted on Monday or Tuesday, it should provide sufficient time for the Court to hear and resolve the matter.

We disagree on your proposed timing and conditions for the submission of the joint letter. In any event, you have failed to meet your own schedule, for you did not send us a proposed draft last night as promised. As we have already advised you, once we receive your proposed draft, we will quickly respond, but until we see your draft we cannot agree to any artificial (and prejudicial) deadlines. We should also continue to honor the parties' past practice of letting all parties review and respond to

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Tom Mavrakakis, Esq.  
Jayna R. Whitt, Esq.  
July 22, 2004  
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any additional comments or arguments from the other side. That past practice is in fact effectively dictated by Judge Chen's direction to present the parties' positions only once and without any provision for a "rely brief". If you elect to unilaterally submit your own letter, and disregard the Court's requirements and the parties' past practices, we cannot prevent it, but will advise the Court of your sharp practice.

Sincerely,



Kenneth W. Brothers

KWB/edb  
Enclosure

cc: Gary Hoffman, Esq.  
Edward Meilman, Esq.  
Michael A. Weinstein, Esq.  
Jeffrey Demain, Esq.





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July 9, 2004

**Via E-Mail and Fed-Ex**

Erik Moller, Esq.  
Howrey Simon Arnold & White, LLP  
301 Ravenswood Avenue  
Menlo Park, CA 94025-3434

RE: *Ricoh v. Aeroflex*  
*Synopsys v. Ricoh*  
Your Ref.: 06816.0060.000000  
Our Ref.: R2180.0171

Dear Erik:

Pursuant to your conversation with Ken Brothers yesterday, enclosed please find a copy of the Notice of Deposition and Production of documents for Dr. Thaddeus Kowalski. You stated that you would accept service of the subpoena on his behalf.

We have noticed the deposition for Newark but would prefer to hold in our New York offices. Please let us know if that is acceptable.

Very truly yours,



Michael A. Weinstein

cc: Gary Hoffman, Esq.  
Edward A. Meilman, Esq.  
Kenneth Brothers, Esq.  
Jeffrey Demain, Esq.

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**EXHIBIT 3**

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Attorneys for Defendants AEROFLEX INCORPORATED, et al.  
 and SYNOPSIS, INC.

UNITED STATES DISTRICT COURT  
 NORTHERN DISTRICT OF CALIFORNIA  
 SAN FRANCISCO DIVISION

RICOH COMPANY, LTD.,  
 Plaintiffs,

v.

AEROFLEX INCORPORATED, AEROFLEX  
 COLORADO SPRINGS, AMI  
 SEMICONDUCTOR, INC., MATROX  
 ELECTRONIC SYSTEMS, LTD., MATROX  
 GRAPHICS, INC., MATROX  
 INTERNATIONAL CORP., and MATROX  
 TECH, INC.,  
 Defendants.

Case No. CV 03-04669 MJJ (EMC)

SYNOPSIS, INC.,  
 Plaintiff,

vs.

RICOH COMPANY, LTD.,  
 a Japanese corporation,  
 Defendant.

Case No. CV-03-02289 MJJ (EMC)

**DECLARATION AND SUMMARY OF  
 OPINIONS OF DR. THADDEUS J.  
 KOWALSKI ON CONSTRUCTION OF  
 DISPUTED CLAIM TERMS OF UNITED  
 STATES PATENT NO. 4,922,432**

**DECLARATION AND SUMMARY OF OPINIONS OF DR. THADDEUS J. KOWALSKI  
ON CONSTRUCTION OF DISPUTED CLAIM TERMS  
OF UNITED STATES PATENT NO. 4,922,432**

**I. INTRODUCTION AND EXPERT QUALIFICATIONS**

1. My name is Thaddeus J. Kowalski, Ph.D. I have prepared this report in connection with my role as an expert witness on behalf of Synopsys, Inc. and Aeroflex, Inc., Aeroflex Colorado Springs, Inc., AMI Semiconductor Inc., Matrox Electronic Systems, Ltd., Matrox Graphics Inc., Matrox International Corp., and Matrox Tech, Inc. in Case Nos. C-03-2289-MJJ and C-03-4669-MJJ (collectively "Synopsys and Defendants") regarding United States Patent No. 4,922,432 ("the '432 patent"). I have summarized in this section my educational background, career history, publications, and other pertinent qualifications. A copy of my current resume is also attached as Attachment 1 to Exhibit A to the Joint Claim Construction and Prehearing Statement.<sup>1</sup>

2. I am the owner of Software Practices and Technology, LLC, a premier provider of technology evaluations, merger and acquisition evaluations, business turnarounds, business and technology strategy, and software and process development. Previously, I was the Vice President and Chief Technology Officer for Advanced Real-Time Communications Architecture and Strategy at AT&T Labs. I was responsible for incubation of new business services. While at AT&T, I led R&D efforts in support of numerous business and consumer initiatives.

3. I hold a master's degree in computer engineering as well as a doctorate in electrical engineering from Carnegie Mellon University. I authored a book on design automation, authored a book on rule-based programming, filed two dozen significant patents, published almost a hundred journal articles, and have given over two hundred technical presentations. As a researcher in Bell Telephone Laboratories I made significant contributions in the areas of artificial intelligence, operating systems, computer-aided design, programming and text-processing environments, speech processing, and real-time systems. I am also a member of the "Vulcans" engineering honor-service society, Eta Kappa Nu, and Phi Beta Kappa.

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<sup>1</sup> Referenced attachments are attached to Exhibit A of the Joint Claim Construction and Prehearing Statement.

4. For more than 15 years, from about 1980 to 1996, I was involved in the field of computer-aided design of integrated circuits. During those years I spent significant time in both the commercial research and academic environments. While I worked at Bell Telephone Laboratories I was also a Ph.D. student at Carnegie-Mellon University. Bell Telephone Laboratories is known through out the world for its groundbreaking work in computer-aided and VLSI design. Carnegie-Mellon was one of the two best Universities in the country in artificial intelligence and computer-aided design. My thesis work involved using rule-based expert system techniques to create a seminal expert system that took an algorithmic description using hardware description languages (HDLs) and created VLSI chips. After completing my thesis, I broadened and extended that work for nearly 10 years at Bell Telephone Laboratories. My work was known worldwide and called the Design Automation Assistant. This worldwide reputation in computer-aided design and verification led to the supervision of six Ph.D. students in four countries. In addition to my thesis and about a hundred journal articles, I published "An Artificial Intelligence Approach to VLSI Design," which was reprinted four times. I also coauthored a book on advanced rule-based programming techniques entitled "Rule Based Programming."

5. Through this experience, as detailed above and as set forth in my resume I have acquired expertise in the areas of the creation of computer-aided design tools to assist in the design of integrated circuits and rule-based expert systems.

## II. BACKGROUND TECHNOLOGY

6. I expect to provide background testimony regarding the state of the art of computer-aided design tools for designing integrated circuits using knowledge-based expert systems.

7. The processes of designing and manufacturing application specific integrate circuits (ASIC) are distinct processes that are both broad and complex. To make it easier to understand and give background, I will provide a description of the steps and processes to provide a helpful context. It is also my understanding from Synopsys' and Defendants' litigation counsel that Ricoh is claiming that the computer-aided design processes of the '432 patent are steps in manufacturing ASICs. In my expert opinion this is incorrect. Dr. Kobayashi, in a subsequent article, also has recognized that the

1 process of designing ASICs is separate from the processes for manufacturing an ASIC (CAD Tool  
2 Integration for ASIC Design: at 364-365 [Attachment 21]).

3 8. I will first explore the processes of designing ASICs and then briefly outline the  
4 processes of manufacturing ASICs. Designing ASICs can be described in two major steps, *i.e.*,  
5 specification capture followed by design synthesis and verification. Specification capture starts with a  
6 customer's need and a set of constraints. A designer will decide if the constraints will allow the  
7 customer's need to be realized as software on a general-purpose processor or as an application specific  
8 integrated circuit. If the constraints guide the designer to an ASIC design, a designer will typically  
9 codify the algorithm for the ASIC using some system to capture the operations and logical flows that  
10 show how to sequence the operations and specify them. The designer can also provide more detailed  
11 data that explicitly groups a sequence of operations to individual clock cycles. Next, the captured  
12 specification is synthesized and verified during design synthesis and verification. This step  
13 encompasses all the design phases, which successively map the captured specification into the  
14 photomask data. This step can be further subdivided into system, architecture, register transfer, logic,  
15 transistor, and layout levels. As the specification is mapped through these levels, technology,  
16 functional partitioning, module specification, and logic specification decisions are made. The logic is  
17 then placed and routed. The layout information is verified for consistency, correctness, and timing.  
18 The layout information is then rendered in a common physical design format so that the photomasks  
19 can be manufactured.

20 9. Before the manufacturing processes can begin a complex and costly process of creating  
21 photomasks is undertaken. This process transforms the physical design information into detailed  
22 instructions for the machine that creates the areas of light and dark on the photomasks. The  
23 photomasks are used over and over again in the manufacturing processes to create the transistor parts,  
24 circuit elements, insulating layers, and metallization paths necessary to fabricate the ASIC.

25 10. Manufacturing ASICs can be described in two major steps, *i.e.*, fabrication and the step  
26 of testing and verification. The fabrication process can be further subdivided into hundreds of phases.  
27 Highlights of these phases include: creating transistor parts, circuits elements, insulating layers, and  
28

1 metallization paths by depositing layers of metal, oxide, and polysilicon on a substrate. Other  
2 highlights include thermal oxidation, lithography, etching, ion implantation, thermal redistribution,  
3 insulation, and metallization. The last step of the manufacturing processes tests and verifies the chip  
4 for environmental, stress, and defect problems.

### 5 III. INFORMATION CONSIDERED IN FORMING OPINIONS

6 11. In forming the opinions set forth in this report, I have considered and reviewed the text  
7 of the '432 patent (attached to the Joint Claim Construction Statement as Attachment 2); the history of  
8 the prosecution of the application that led to the issuance of the '432 patent (attached to the Joint Claim  
9 Construction Statement as Attachment 3); and the prior art references that were before the patent office  
10 during the prosecution of the '432 patent (a few of which are attached to the Joint Claim Construction  
11 Statement as Attachments 4, 6-15, and 35. I also considered the related '016 patent (Attachment 5)  
12 and '669 patent (Attachment 23), which also relate to rule-based expert systems and lists Dr.  
13 Kobayashi (an inventor on the '432 patent) as an inventor. I also considered the November 1989  
14 article authored by Dr. Kobayashi (Attachment 22), which in my expert opinion, describes the same  
15 basic KBSC system described in the '432 patent. Finally, I have also considered the dictionaries,  
16 technical dictionaries, technical treatises and textbooks, and technical articles identified in Synopsys'  
17 and Defendants' portion of the Joint Claim Construction Chart. The relevant portions of these are  
18 provided in Attachments 16-21 and 24-34.

### 19 IV. OPINION AS TO LEVEL OF SKILL OF ONE OF ORDINARY SKILL IN THE ART

20 12. It is my understanding from Synopsys' and Defendants' litigation counsel that the  
21 proper construction of disputed claim terms requires determining the meaning of those disputed claim  
22 terms through the eyes of a person of ordinary skill in the art, *i.e.*, the pertinent scientific area, at the  
23 time the application for the '432 patent was filed, *i.e.*, January 1988. It is also my understanding from  
24 Synopsys' and Defendants' litigation counsel that the level of skill of a person of skill in the art may be  
25 determined based on one or more of the following factors: the educational level of the inventor; the  
26 type of problems encountered in the art; prior art solutions to those problems; the rapidity with which  
27  
28



1 innovations are made; sophistication of the technology; and the educational level of active workers in  
2 the field.

3 13. For purposes of interpreting the claims of the '432 patent, the pertinent scientific area is  
4 the creation of computer-aided design tools to assist in the design of integrated circuits. Typically,  
5 individuals of ordinary skill in this field would have a college degree (B.S. or M.S.) in a discipline  
6 such as Computer Science, Electrical Engineering, or Electrical and Computer Engineering and/or  
7 significant hands-on experience in creating large-scale software systems for assisting in the design of  
8 integrated circuits. In addition, individuals of ordinary skill in this field would have significant  
9 knowledge in programming, databases, user interfaces, and some knowledge of digital integrated  
10 circuit design.

11 **V. OPINIONS AS TO MEANING OF DISPUTED CLAIM TERMS IN THE '432 PATENT**

12 14. It is also my understanding from Synopsys' and Defendants' litigation counsel that the  
13 claim terms should be construed in light of the intrinsic evidence of record, including the patent  
14 specification, drawings in the patent, the prosecution (or file) history, and prior art cited in the patent or  
15 file history. I have reviewed and relied upon materials listed in Section III. Using these resources, my  
16 knowledge of the field into which the patented invention falls and my own familiarity with the  
17 literature on computer-aided design tools to assist in the design of integrated circuits both prior to and  
18 after the filing date of the patent, and my familiarity with the level of ordinary skill in the art at the  
19 time the patent was filed, I have formed an opinion as to how one of ordinary skill in the art would  
20 have interpreted the claim terms at the time the application for the '432 patent was filed. My opinion  
21 as to each of the terms identified to me as being at least potentially in dispute by the parties to this case  
22 are provided in the following paragraphs.

23 15. The proper construction and support as to each of the terms identified to me as being at  
24 least potentially in dispute by the parties to this case are provided in Synopsys' and Defendants'  
25 portion of the Joint Claim Construction Chart. I arrived at these constructions through discussions  
26 between Synopsys' and Defendants' litigation counsel and myself. These constructions are also  
27 provided in the following paragraphs with some additional comments or discussion, where appropriate.

1           A.       **“A computer-aided design process for designing”**

2           16.     The meaning of this phrase is “a process that uses a computer for designing, as  
3 distinguished from a computer-aided manufacturing process, which uses a computer to direct and  
4 control the manufacturing process.” This definition is not only supported by the definitions for  
5 computer-aided design (CAD) and computer-aided manufacturing (CAM) provided by Synopsys and  
6 Defendants, but is also supported by the dictionary definitions provided for those terms by Ricoh (IBM  
7 Dictionary at 129-130 [Attachment 16]; IEEE Dictionary at 180 [Attachment 19]). It is also consistent  
8 with the ordinary dictionary definitions for “designing” and “manufacturing” (Webster’s Ninth New  
9 Collegiate Dictionary at 343, 725 [Attachment 20]).

10          17.     Neither the ‘432 patent’s specification nor its file history alters the ordinary meaning of  
11 this phrase. In fact, the ‘432 patent specification is consistent with and supports the ordinary meaning  
12 as set forth in the previous paragraph (‘432 patent: 1:9-12 [Attachment 2]).

13          18.     I disagree with the definition proposed by Ricoh for this phrase: “During the  
14 manufacture of a desired application specific integrated circuit (ASIC) chip that is designed to perform  
15 a specific purpose, a process of designing the desired ASIC using a computer.” In particular, I  
16 disagree with Ricoh’s attempt to equate or include computer-aided design processes for designing  
17 ASIC’s with manufacturing ASICs. Designing an ASIC is a predicate process that creates the plan to  
18 make an ASIC. Specifically, the claimed processes of the ‘432 patent only produces the list of the  
19 necessary parts and their required interconnections and then uses that list to pictorially represent the  
20 physical placement of these necessary parts and the routing of their required interconnections. After  
21 additional complex processes, this information is eventually used to make the photomasks, or masks,  
22 that are used in the processes that manufacture the ASIC. The goal of the design process is to only  
23 have to make these masks once because of their cost, which for present day ASICs is about one million  
24 dollars. Manufacturing an ASIC entails the processes that physically implement the plan each time the  
25 ASIC is manufactured. Unlike the design processes, which are performed once, the processes that  
26 manufacture ASICs are repeated each time an ASIC is manufactured.

1           B.       **“application specific integrated circuit”**

2           19.       The meaning of this phrase is “an interconnected miniaturized electronic circuit on a  
3 single piece of semiconductor material designed to perform a specific function, as distinguished from  
4 standard, general purpose integrated circuits, such as microprocessors, memory chips, etc.” The ‘432  
5 patent specifically defines this phrase as “an integrated circuit chip designed to perform a specific  
6 function, as distinguished from standard, general purpose integrated circuits, such as microprocessors,  
7 memory chips, etc.” (‘432 patent: 1:13-17 [Attachment 2]). Synopsys’ and Defendants’ definition for  
8 this phrase is the same but merely expands on this definition by providing a definition for “integrated  
9 circuit.”

10          20.       I disagree with Ricoh’s definition, “an integrated circuit chip designed to perform a  
11 specific function,” because it fails to explicitly exclude “general purpose integrated circuits, such as  
12 microprocessors, memory chips, etc.” Ricoh’s definition is contrary to the ‘432 patent, which provides  
13 the ordinary meaning for this phrase (‘432 patent: 1:13-17 [Attachment 2]).

14          C.       **“actions and conditions”**

15          21.       “Actions and conditions” refer to “logical operations” or more specifically “logical  
16 steps and decisions.” This is consistent with the definitions for “operations” provided by Synopsys and  
17 Defendants in their portion of the Joint Claim Construction Chart (IBM dictionary: at 479 [operations]  
18 [Attachment 16]). It is also consistent with the ‘432 patent’s specification (‘432 patent: 2:24-27; 4:15-  
19 19; 6:3-14; 8:47-51 [Attachment 2]). The limitation that these logical steps and decisions be  
20 “represented as rectangles and diamonds in the flowchart” is dictated by the ‘432 patent’s file history.  
21 In particular, the ‘432 patent’s file history unambiguously limits the input format to a flowchart format  
22 (‘432 patent’s file history: April 1989 Amendment at 9, 11; October 1989 Examiner Interview  
23 Summary; November 1989 Amendment at 6-7 [Attachment 3]). This is also consistent with the fact  
24 that the only adequately described input format in the ‘432 patent is the flowchart format (‘432 patent:  
25 3:50-59; 4:61-63; 7:20-23 [Attachment 2]). Although the ‘432 patent mentions a list type format (‘432  
26 patent: 2:21-24 [Attachment 2]) and appears to show a statelist in Appendix A (‘432 patent: 14:7-30  
27 [Attachment 2]), there is no description explaining that format in the ‘432 patent. In fact, such

1 explanation for the list format was only added in the later-filed, and related, '016 patent ('016 patent:  
2 7:32-9:52 [Attachment 5]).

3 D. **"architecture independent"**

4 22. The phrase "architecture independent" was not in the originally filed application for the  
5 '432 patent. It was added to the application for the '432 patent in the abstract, the specification, and  
6 the claims as part of the April 1989 Amendment in the '432 patent's file history (April 1989  
7 Amendment at pages 1-8 [Attachment 3]). This phrase is vague and imprecise and does not have a  
8 clear meaning. In addition, the '432 patent also does not provide a definition for this phrase.

9 23. "Architecture independent" is narrowly defined in the '432 patent's file history by the  
10 patent applicant's referencing and incorporating of the prior art '435 patent (Darringer et al.). Based  
11 on the file history and the '435 patent this phrase means: "not including (*i.e.*, excluding) a register  
12 transfer level (RTL) description or any other description that is hardware architecture dependent. An  
13 RTL description consists of: 1) defining the inputs, outputs, and any registers of the proposed ASIC;  
14 and, 2) describing for a single clock cycle of the ASIC how the ASIC outputs and any registers are set  
15 according to the values of the ASIC inputs and the previous values of the registers; an RTL description  
16 defines any control needed for the ASIC" ('432 patent's file history: November 1989 Amendment at 7  
17 [Attachment 3]). Specifically, the prior art '435 patent does describe an input specification that  
18 includes logical operations, *i.e.*, actions and conditions ('435 patent: Fig. 4; 4:26-32; 5:27-35  
19 [Attachment 4]). The '432 patent claims were claimed by the patent applicant to be different from the  
20 '435 patent because, among other things, the phrase "architecture independent" was added to the  
21 claims. The patent applicant also stated that the prior art '435 patent's input specification included a  
22 register-transfer level description and therefore, that the '435 input specification was hardware  
23 architecture dependent, in contrast to the patent applicant's architecture independent specification  
24 (April 1989 Amendment at 8-10, 13; November 1989 Amendment at 7 [Attachment 3]).

25 24. In other words, the input specification of the prior art '435 patent was claimed to be  
26 different from the input specification of the '432 patent because, unlike the prior art '435 patent, the  
27  
28

1 input specification of the '432 patent only consists of logical operations and excludes a register-  
2 transfer level description.

3       25. I disagree with Ricoh's proposed definition for "architecture independent actions and  
4 conditions" and Ricoh's incorporation of that definition into the definition of the phrase "a set of  
5 definitions of architecture independent actions and conditions." Ricoh's definition provides:  
6 "functional or behavioral aspects of a portion of a circuit (or circuit segment) that does not imply any  
7 set architecture, structure, or implementing technology." First, Ricoh's proposed definition fails to  
8 acknowledge the limitations from patent applicants statements in the '432 patent's file history. As  
9 discussed in Paragraphs 21 and 23, these statements limit the input specification and therefore, the  
10 "actions and conditions" to a flowchart format. Second, Ricoh's proposed definition fails to recognize  
11 that "architecture independent" was narrowly defined in the '432 patent's file history as excluding a  
12 register-transfer level description as defined in the prior art '435 patent. Without the file history  
13 statement, the phrase "architecture independent" is vague and imprecise and is not defined in the '432  
14 patent. Third, Ricoh appears to equate "architecture independent" with the equally imprecise and  
15 vague phrase "does not imply any set architecture, structure, or implementing technology" and which  
16 is also contrary to the definition claimed in the '432 patent's file history and not supported by any  
17 description in the '432 patent's specification. Finally, Ricoh's definition uses the vague and imprecise  
18 phrase "functional or behavioral aspects of a portion of a circuit," which is neither consistent with nor  
19 supported by the description in the '432 patent (2:24-27; 4:15-19; 6:3-14; 8:47-51 [Attachment 2]).

20       26. I also do not agree with Ricoh's definition for the word "storing" in a number of the  
21 claim steps: "placing in computer memory." In particular, "storing" means "placing data in any  
22 storage device" that is accessible by the processor in the computer system (IBM Dictionary of  
23 Computing at 654 [Attachment 16]).

24       E. **"a set of definitions of architecture independent actions and conditions"**

25       27. This entire phrase, incorporating the above definitions, means: "a set of named  
26 descriptions defining the functionality and arguments for the available logical steps and decisions that  
27 may be specified in the flowchart; and excluding a register transfer level description." This is

1 consistent with the '432 patent's specification ('432 patent: 4:61-63; 5:20-22; 6:3-14; 7:25-50; 8:47-  
2 51[Attachment 2]).

3 28. I disagree with Ricoh's definition for this entire claim step. That disagreement stems  
4 from Ricoh's incorporations of its definitions for "storing" and "architecture independent actions and  
5 conditions" as discussed in Paragraphs 25-26.

6 F. **"hardware cells"**

7 29. "Hardware cells" refers to the "logic blocks for which the functional level (e.g., register  
8 transfer level), logic level (e.g., flip flop and gate level), circuit level (e.g., transistor level), and layout  
9 level (e.g., geometrical mask level) descriptions are all defined." This definition is consistent with the  
10 '432 patent's requirement that "previously designed, tested, and proven hardware cells" are defined in  
11 the cell library ('432 patent: 5:15-20 [Attachment 2]). The '432 specification and the other steps in  
12 claims 13-17 also require that the hardware cells must be defined with the following types of  
13 information: functional level, logic level, circuit level, and layout level ('432 patent: 2:34-39; 3:59-67;  
14 9:24-51; 16:60-68 [Attachment 2]).

15 30. My disagreement with Ricoh's definition for this term, "previously designed circuit  
16 components or structure that have specific physical and functional characteristics used as building  
17 blocks for implementing an ASIC to be manufactured" includes the use of the phrase "specific  
18 physical and functional characteristics." The '432 patent's described method for designing an  
19 application integrated circuit requires the hardware cells in the cell library to be previously designed,  
20 tested, and proven logic blocks ('432 patent: 5:15-20 [Attachment 2]). This means that those hardware  
21 cells must be defined with the following types of information: functional level, logic level, circuit  
22 level, and layout level ('432 patent: 2:34-39; 3:59-67; 9:24-51; 16:60-68 [Attachment 2]). I also  
23 disagree with the use of the phrase "for implementing an ASIC to be manufactured." As explained in  
24 Paragraphs 16-18, the '432 patent claims 13-17 encompass computer-aided design processes for  
25 designing an ASIC and not manufacturing them.



G. **“data describing a set of available integrated circuit hardware cells for performing the actions and conditions defined in the stored set”**

31. This claim phrase means “a set of named integrated circuit hardware cells that includes at least one hardware cell for each stored definition that may be specified for the available logical steps and decisions; where each named hardware cell has corresponding descriptions at the functional level (e.g., register transfer level), logic level (e.g., flip-flop and gate level), circuit level (e.g., transistor level), and layout level (e.g., geometrical mask level) that are all defined.” The ‘432 patent specification requires that there be one or more defined hardware cells corresponding to each of the stored definitions that may be specified (‘432 patent: Fig. 4; 5:23-25 [Attachment 2]). The ‘432 specification and the other steps in claims 13-17 also require that the data describing the hardware cells must define the following types of information: functional level, logic level, circuit level, and layout level (‘432 patent: 2:34-39; 3:59-67; 9:24-51; 16:60-68 [Attachment 2]).

32. I disagree with Ricoh’s proposed definition, “a library of cell information that describe hardware cells capable of performing the different architecture independent actions and conditions placed in the library of definitions,” because Ricoh fails to include a requirement that there is at least one corresponding hardware cell description for each of the stored definitions that may be specified. Similar to its definition for hardware cell, Ricoh’s definition again fails to specify what constitutes the “data describing” the available hardware cells as I explained in Paragraph 33.

H. **“expert system”**

33. The meaning of an expert system is: “software executing on a computer system that attempts to embody the knowledge of a human expert in a particular field and then uses that knowledge to simulate the reasoning of such an expert to solve problems in that field. This system is comprised of a knowledge base containing rules, working memory containing the problem description, and an inference engine. It solves problems through the selective application of the rules in the knowledge base to the problem description, as distinguished from conventional software, which uses a predefined step-by-step procedure (algorithm) to solve problems.” This ordinary meaning is apparent from the texts, dictionaries, and articles from that time period as well as the Dr. Kobayashi’s own

1 article from the same time his application for the '432 patent was pending (Computer Aided VLSI  
 2 Design Vol.1 No. 4: 351, 377-381, 383, 388-389 [Attachment 22]; '669 patent: Abstract, 1:13-16,  
 3 2:28-33, 4:31-62; 5:21-38, 5:58-68, 6:1-7:68, 17:62 [Attachment 23]; Understanding Expert Systems:  
 4 7-10, 29-30, 40, 42, 74-78, 99-110 [Attachment 24]; An Artificial Intelligence Approach To VLSI  
 5 Design: at 9-15 [Attachment 25]; Artificial Intelligence Terminology: at 6 [algorithm], 10 [antecedent],  
 6 53 [consequent], 86-87 [expert system], 127 [inference engine], 140 [knowledge based system], 204  
 7 [production system], 223 [rule base, rule-based system], 281 [working memory] [Attachment 26];  
 8 Microsoft Press Computer Dictionary: at 136 [expert system] [Attachment 27]; IBM Dictionary of  
 9 Computing: 591 [rule interpreter, rule-based system] [Attachment 16]; The VLSI Design Automation  
 10 Assistant: at 34 [Attachment 28]; A Rule-Based Logic Circuit Synthesis System for CMOS Gate  
 11 Arrays: at 597 [Attachment 29]; Expert Systems: A Non-Programmer's Guide: 8-10, 16 [Attachment  
 12 30]; Expert Systems: Tools and Applications: at 269 [Attachment 31]; Expert Systems: Principles and  
 13 Case Studies: at 11-12 [Attachment 32]; Knowledge-Based Systems: The View in 1986: at 16  
 14 [Attachment 33]). In particular, Mr. Kobayashi's article states that there are only "two different types  
 15 of approaches to automatic logic synthesis: algorithmic and rule-based. IF-THEN-type rules rather  
 16 than algorithmic programming languages are used in the latter approach to synthesize logic circuits"  
 17 (Computer Aided VLSI Design Vol.1 No. 4: at 351 [Attachment 22]). Mr. Kobayashi also states that  
 18 the KBSC method described in this article and in his patent "is clearly distinguished from other logic  
 19 synthesis systems in terms of its flowchart input form and rule-based approach to automatic data-path  
 20 and control logic synthesis" (Computer Aided VLSI Design Vol.1 No. 4: at 389 [Attachment 22]).

21 34. The '432 patent's specification and the claims also support this ordinary meaning for  
 22 the term expert system ('432 patent: 2:58-63; 5:6-8; 8:58-60; 10:39-11:26; 14:50-59; 15:53-  
 23 58[Attachment 2]).

24 35. The '432 patent's file history and the prior art references referred to in that file history  
 25 also dictate this definition for the term "expert system" (April 1989 Amendment at 9-11, 15, 17;  
 26 October 1989 Examiner Interview Summary; November 1989 Amendment at 7, 9 [Attachment 3];  
 27 '435 patent: 7:32-9:35 [Attachment 4]; An Overview of Logic Synthesis Systems: at 170 [Attachment  
 28



7]; The CMU Design Automation System: at 75-77 [Attachment 8]). In particular, the patent applicant states numerous times and the patent examiner agreed in the '432 patent's file history that a rule-based expert system was required for translating the flowchart into a netlist. I would also like to point out that in the 1988 time frame the terms "expert system," "rule-based expert system," "knowledge based expert system," and "production system" were all used interchangeably to refer to an "expert system" as defined in Paragraph 33.

**I. "knowledge base"**

36. The meaning of the term "knowledge base" is "the portion of the expert system containing a set of rules embodying the expert knowledge for the particular field." This ordinary meaning is apparent from the texts from the 1988 time period as well as Dr. Kobayashi's own related '669 patent, which was filed about the same time as his application for '432 patent was filed ('669 patent: Abstract [Attachment 23]).

37. The '432 patent's specification and the claims also support this ordinary meaning for the term knowledge base ('432 patent: 10:39-11:15 [Attachment 2]).

38. The '432 patent's file history and the prior art references referred to in that file history also dictate this definition for the term "knowledge base" ('432 patent's file history: April 1989 Amendment at 9-11, 15, 17; October 1989 Examiner Interview Summary; November 1989 Amendment at 7, 9 [Attachment 3]; '435 patent: 7:32-9:35 [Attachment 4]).

39. I disagree with Ricoh's definition for the term "expert system knowledge base," which provides: "database used to store expert knowledge of highly skilled VLSI designers." First, Ricoh's definition fails to acknowledge that a knowledge base is just one portion of the rule-based expert system; specifically, the portion containing the IF-THEN rules embodying the expert knowledge ('432 patent: 14:50-59; 15:53-58 [Attachment 2]). The file history requires that a rule-based expert system be used (April 1989 Amendment at 9-11, 15, 17; October 1989 Examiner Interview Summary; November 1989 Amendment at 7, 9 [Attachment 3]). Second, Ricoh's definition fails to include a definition for "expert system" and all of the necessary portions required for such a system based upon the ordinary meaning of "expert system" set forth in Paragraph 33. Third, Ricoh's definition is

inaccurate because it fails to require that the knowledge base store the expert knowledge in the form of IF-THEN rules. This is contrary to the '432 patent specification, the other claims, the '432 patent's file history, and the inventors own article and his related patent from that period (Computer Aided VLSI Design Vol.1 No. 4: 351, 377-381, 383, 388-389 [Attachment 22]; '669 patent: Abstract, 1:13-16, 2:28-33, 4:31-62; 5:21-38, 5:58-68, 6:1-7:68, 17:62 [Attachment 23]).

40. Ricoh's definition also contradicts the patent applicant's own claims that the prior art '435 patent (Darringer et al.) differed because it did not provide a "knowledge base of any kind" or a "rule-based expert system" ('432 patent's file history: April 1989 Amendment at 9-10 [Attachment 3]). The prior art '435 patent contained "expert knowledge of highly skilled VLSI designers," which is referred to as transforms ('435 patent: 7:32-9:35 [Attachment 4]). Ricoh's definition is too broad because it would encompass the "transforms" described in the prior art '435 patent, which the patent applicant claimed were not a knowledge base.

J. **"a set of rules for selecting hardware cells to perform the actions and conditions"**

41. The meaning of this phrase is: "a set of rules, each having an antecedent portion (IF) and a consequent portion (THEN), embodying the knowledge of expert designers for application specific integrated circuits, which enables the expert system to map the specified stored definitions for each logical step and decision represented in the flowchart to a corresponding stored hardware cell description." This definition is consistent with the ordinary meaning of the term "rules" when referring to the rules that are contained in the knowledge base of a rule-based expert system (Expert Systems: A Non-Programmer's Guide: 8-10, 16 [Attachment 30]; Expert Systems: Principles and Case Studies: at 11-12 [Attachment 32]). The definition is also consistent with the inventor's article published while the '432 patent application was pending (Computer Aided VLSI Design Vol.1 No. 4: 351, 377-381, 383, 388-389 [Attachment 22]). In particular, the quote from Paragraph 33 of the Dr. Kobayashi's article shows that the KBSC method described there and in the '432 patent was limited to using IF-THEN type rule to codify the expert knowledge of ASIC designers.

42. The definition of this phrase is also consistent with the '432 patent's specification and required by the other claimed steps and other claims ('432 patent: 2:58-63; 8:20-30; 8:58-9:62; 10:39-11:26; 14:50-59; 15:53-58; 16:34-65 [Attachment 2]).

43. The '432 patent's file history and the prior art references, in that file history, also dictate the definition for this phrase ('432 patent's file history: April 1989 Amendment at 9-11, 15, 17; October 1989 Examiner Interview Summary; November 1989 Amendment at 7, 9 [Attachment 3]; '435 patent: 7:32-9:35 [Attachment 4]; An Overview of Logic Synthesis Systems: at 170 [Attachment 7]; The CMU Design Automation System: at 75-77 [Attachment 8]).

44. I disagree with Ricoh's definition for this phrase: "a plurality of rules for selecting among the hardware cells placed in the hardware cell library, wherein the rules comprise the expert knowledge of highly skilled VLSI designers formulated as prescribed procedures." First, Ricoh's definition of "rule" is contrary to the ordinary meaning for that term when applied to rule-based expert systems (Expert Systems: A Non-Programmer's Guide: 8-10, 16 [Attachment 30]; Expert Systems: Principles and Case Studies: at 11-12 [Attachment 32]). Second, Ricoh's definition for "rule" is also inconsistent with the '432 patent's file history. Specifically, Ricoh's definition for "rule" provides: "the expert knowledge of highly skilled VLSI designers formulated as prescribed procedures." This contradicts patent applicant's claims that the prior art '435 patent (Darringer et al.) differed because it did not provide a "knowledge base of any kind" or a "rule-based expert system" ('432 patent's file history: April 1989 Amendment at 9-10 [Attachment 3]). The prior art '435 patent does contain "expert knowledge of highly skilled VLSI designers formulated as prescribed procedures" ('435 patent: 7:32-9:35 [Attachment 4]). The '435 patent refers to the expert knowledge of highly skilled VLSI designers as "transforms" and the prescribed procedures as "scenarios." Ricoh's definition is too broad because it would encompass the "transforms" and "scenarios" described in the prior art '435 patent, which the patent applicant claimed were not a knowledge base.

45. I also disagree with Ricoh's definition for this phrase because Ricoh does not require that the set of "rules" be for mapping the specified stored definitions for each logical step and decision represented in the flowchart to a corresponding stored hardware cell description. This is inconsistent

1 with the '432 patent specification, claim 13, and the other claims ('432 patent: 2:58-63; 8:20-30; 8:58-  
2 9:62; 10:39-11:26; 14:50-59; 15:53-58; 16:34-65 [Attachment 2]).

3 K. **“describing for a proposed application specific integrated circuit a series of**  
4 **architecture independent actions and conditions”**

5 46. The meaning of this phrase is: “the designer represents a sequence of logical steps  
6 (rectangles) and decisions (diamonds), and the transitions (lines with arrows) between them in a  
7 flowchart format for a proposed application specific integrated circuit.” This definition is consistent  
8 with the '432 patent's only adequately described input specification. This definition is dictated by the  
9 claim language in claim 13 and the patent applicant's statements in the '432 patent's file history ('432  
10 patent: Figs. 1a, 5, & 7; 2:21-27; 3:20-22; 3:50-59; 4:5-22; 4:35-38; 7:12-23; 16:34-65 [Attachment 2];  
11 '432 patent's file history: April 1989 Amendment at 9, 11; October 1989 Examiner Interview  
12 Summary; November 1989 Amendment at 6-7 [Attachment 3]).

13 47. This definition is also consistent with the dictionary definitions of the words “series,”  
14 “sequence,” and “describing” (Webster's Ninth New Collegiate Dictionary at 1074, 1073, 343  
15 [Attachment 20]).

16 48. I disagree with Ricoh's definition for this claim step, which provides: “a user describing  
17 an input specification containing the desired functions to be performed by the designed ASIC.” First,  
18 Ricoh's definition incorrectly provides that the “desired functions to be performed” are contained in  
19 this step. This is contrary to the '432 patent's specification and the claim language. Second, Ricoh's  
20 definition ignores the words “series” and “conditions” and fails to acknowledge that this step is for  
21 describing, or representing, the sequence of logical steps and decisions and the transitions between  
22 them. This definition is also contrary to the '432 patent's specification and the claim language. Third,  
23 Ricoh's definition does not provide for the limitation required by the '432 patent's file history that the  
24 sequence of logical steps and decisions and the transitions between them must be represented or  
25 described in a flowchart format ('432 patent's file history: April 1989 Amendment at 9, 11; October  
26 1989 Examiner Interview Summary; November 1989 Amendment at 6-7 [Attachment 3]).

1           49.     Ricoh's definition is also incorrect because it leaves out critical information.  
2 Specifically, describing the sequence of the steps and decisions is necessary for producing the control  
3 signals required for the ASIC. This sequence information for the steps and decisions is critical because  
4 these steps and decisions are required to be "architecture independent," excluding a register-transfer  
5 level description.

6           L.     **"specifying for each described action and condition of the series one of said stored**  
7                   **definitions"**

8           50.     The meaning of this phrase is: "the designer assigns one definition from the set of  
9 stored definitions for each of the described logical steps and decisions represented in the flowchart."  
10 This definition is consistent with the '432 patent's only adequately described input format and dictated  
11 by the claim language in claim 13 ('432 patent: Fig. 5; 3:20-22; 4:61-63; 5:20-22; 7:24-25; 8:23-26;  
12 8:51-56 [Attachment 2]).

13           51.     I disagree with Ricoh's definition for this claim step: "specifying for each desired  
14 function to be performed by the desired ASIC one of the definitions of the architecture independent  
15 actions and conditions stored in the library of definitions that is associated with the desired function."  
16 First, Ricoh's definition reiterates the same inaccuracies from the previous describing step. Second,  
17 Ricoh's definition contradicts the '432 patent's specification by failing to acknowledge that the  
18 designer separately assigns the stored definitions to each logical step and decision. In addition, the  
19 claim language clearly provides that this assigning step must occur after the series of logical steps and  
20 decisions have been described (or represented).

21           52.     I also disagree with Ricoh's definition for "specifying": "mapping or associating a  
22 desired function to be performed by the manufactured ASIC with a definition from the library of  
23 definitions." The claim language and the '432 patent specification make clear that this step is  
24 performed by the user assigning the stored definitions to each of the described logical steps and  
25 decisions ('432 patent: Fig. 5; 3:20-22; 4:61-63; 5:20-22; 7:24-25; 8:23-26; 8:51-56 [Attachment 2]).  
26 This "specifying" step is part of input specification provided by the user for the desired ASIC to be  
27 designed and cannot be performed by the system described in the '432 patent. Ricoh's definition is  
28

1 also contrary to the dictionary definitions of “specify” and “specification” Webster’s Ninth New  
 2 Collegiate Dictionary at 1132 [Attachment 20]). Finally, I also disagree with Ricoh’s adding of the  
 3 phrase “performed by a manufactured ASIC.” As explained in Paragraphs 16-18, the ‘432 patent  
 4 claims 13-17 encompass computer-aided design processes for designing an ASIC and not  
 5 manufacturing them.

6 **M. “which corresponds to the desired action or condition to be performed”**

7 53. The meaning of this phrase is: “each specified definition must correspond to the  
 8 intended step or decision to be performed.” This definition is consistent with the ordinary meaning of  
 9 the terms, the ‘432 patent specification, and required by the language of the claims (‘432 patent: Fig. 5;  
 10 3:20-22; 4:61-63; 5:20-22; 7:24-25; 8:23-26; 8:51-56; 16:34-65 [Attachment 2]).

11 54. Ricoh’s definition, which is provided in Paragraph 51, is incorrect because it replaces  
 12 “correspond to” with the phrase “associated with.” The claim language and the ‘432 patent  
 13 specification and the ordinary meaning of these terms all require that the definitions assigned must  
 14 correspond to (or match) what is intended for each logical step or decision (Webster’s Ninth New  
 15 Collegiate Dictionary at 110 [associate], 293 [correspond] [Attachment 20]).

16 **N. “selecting from said stored data for each of the specified definitions a**  
 17 **corresponding integrated circuit hardware cell for performing the desired function**  
 18 **of the application specific integrated circuit”**

19 55. The meaning of this phrase is: “mapping the specified stored definitions for each logical  
 20 step and decision represented in the flowchart to a corresponding stored hardware cell description.”  
 21 This definition is consistent with the ‘432 patent’s only adequately described system and dictated by  
 22 the claim language in claim 13 (‘432 patent: Fig. 4; 3:16-19; 4:66-5:3; 5:22-29; 8:31-37; 8:58-60; 9:52-  
 23 60; 16:34-65 [Attachment 2]) ‘432 patent file history: April 1989 Amendment at 10 [Attachment 3].



O. **“said step of selecting a hardware cell comprising applying to the specified definition of the action or condition to be performed, a set of cell selection rules stored in said expert system knowledge base”**

56. The meaning of this phrase is: “the mapping of the specified definitions to the stored hardware cell descriptions must be performed by an expert system having an inference engine for selectively applying a set of rules, each rule having an antecedent portion (IF) and a consequent portion (THEN), embodying the knowledge of expert designers for application specific integrated circuits, which enables the expert system to map the specified stored definitions for each logical step and decision represented in the flowchart to a corresponding stored hardware cell description.” This definition is consistent with the ‘432 patent’s only adequately described system and dictated by the claim language in claim 13 and the patent applicant’s statements in the ‘432 patent’s file history (‘432 patent: Abstract; 2:58-63; 5:6-8; 8:29-37; 8:58-60; 9:8-13; 11:16-26; 16:34-65 [Attachment 2]; ‘432 patent’s file history: April 1989 Amendment at 8-11, 17; October 1989 Examiner Interview Summary; November 1989 Amendment at 4, 6-7, 9 [Attachment 3]; ‘435 patent: 7:32-9:35 [Attachment 4]).

57. Ricoh’s combined definition for both N and O provides: “selecting from the plurality of hardware cells in the hardware cell library a hardware cell for performing the desired function of the desired ASIC through the application of the rules.” This definition is not correct and leaves out numerous requirements. First, Ricoh’s definition fails to require that the mapping be performed for “each specified definition.” This is required by both the claim language itself and the ‘432 patent specification. Second, Ricoh’s definition also fails to limit how the “mapping” is performed. Specifically, that the mapping must be accomplished using a rule-based expert system (“‘432 patent’s file history: April Amendment at 10 [Attachment 3]). Third, Ricoh’s definition is contrary to the ordinary meaning of “expert system” and the statements in the ‘432 patent’s file history because it fails to require that the applying of the “set of cell selection rules” in the knowledge base of the rule-based expert system is performed by that rule-based expert system’s inference engine (Paragraphs 33-35).

1 P. **“netlist”**

2 58. The meaning of this phrase is: “a structural description that includes a custom controller  
3 type hardware cell and all other hardware cells required to implement the application specific  
4 integrated circuit’s operations and any necessary interconnections including the necessary control and  
5 data path information for connecting the hardware cells and the controller.” This definition is  
6 consistent with the ‘432 patent’s only adequately described system as well as the claims (‘432 patent:  
7 Abstract; 1:17-37; 2:39-44; 4:39-43; 5:8-12; 5:30-40; 9:62-10:9; 12:31-35; 13:55-14:3; 16:34-65  
8 [Attachment 2]).

9 59. Ricoh’s definition, which is: “a description of the hardware components (and their  
10 interconnections) needed to manufacture the ASIC as used by subsequent processes, e.g., mask  
11 development, foundry, etc.” is not correct. First, Ricoh’s definition fails to require that there is a  
12 description for the controller type hardware cell, which is needed to provide the control for the other  
13 needed hardware cells as required by the ‘432 patent specification. Second, the ‘432 patent also  
14 clearly requires that the netlist must provide the structural description of the control paths and data  
15 paths that connect the controller type hardware cell and the other needed hardware cells.

16 60. I also disagree with the use of the phrase “needed to manufacture the ASIC as used by  
17 subsequent processes, e.g., mask development, foundry, etc.” As explained in Paragraphs 16-18, the  
18 ‘432 patent claims 13-17 encompass computer-aided design processes for designing an ASIC and not  
19 manufacturing them.

20 Q. **“generating for the selected integrated circuit hardware cells, a netlist defining the**  
21 **hardware cells which are needed to perform the desired function of the integrated**  
22 **circuit”**

23 61. The meaning of this phrase is: “producing a list of the needed hardware cells by  
24 eliminating any mapped hardware cells that are redundant or otherwise unnecessary and producing a  
25 custom controller type hardware cell for providing the needed control for those other hardware cells.”  
26 This definition is consistent with the ‘432 patent’s only adequately described system and dictated by  
27  
28



the claim language in claim 13 ('432 patent: Abstract; 1:17-37; 2:39-44; 4:39-43; 5:8-12; 5:30-40; 9:62-10:9; 13:55-14:3; 16:34-65 [Attachment 2]).

62. Ricoh's definition, which is: "generating a netlist that identifies the hardware cells needed to perform the function of the desired ASIC and the necessary parameters for connecting the respective inputs and outputs of each hardware cell, the netlist is passed to the next subsequent step in the process for manufacturing the desired ASIC" is not correct. First, contrary to the claim language, "for the selected cells," Ricoh's definition fails to require that generation step must follow the prior step of selecting (mapping) the hardware cell descriptions and therefore, performed using those selected (mapped) hardware cell descriptions. Instead, Ricoh's definition, contrary to the claim language and the '432 patent's specification, provides that the generation step is performed without any connection to this prior step. Second, Ricoh's definition does not require that the controller type hardware cell be generated. This is also contrary to the requirements in the '432 patent's specification and the definition of "netlist" as required by the '432 patent's specification. Third, again contrary to the '432 patent's specification and the claim language, Ricoh's definition fails to require that the "hardware cells which are needed" are the selected (mapped) hardware cell descriptions that remain after any unnecessary or redundant hardware cell descriptions have been eliminated.

R. **"generating...interconnection requirements therefor"**

63. The meaning of this phrase is: "producing the necessary structural control paths and data paths for the needed hardware cells and the custom controller." This definition is consistent with and required by the claim language and the '432 patent's specification ('432 patent: Abstract; Figs. 6 & 13-15; 1:17-37; 2:39-44; 3:23-25; 3:40-45; 4:39-43; 5:8-12; 5:30-40; 9:62-10:9; 13:55-14:3; 16:34-65 [Attachment 2]).

64. I do not agree with the Ricoh's definition and specifically the part that provides: "the necessary parameters for connecting the respective inputs and outputs of each hardware cell." The "interconnection requirements" for the needed hardware cells netlist must include the structural control paths and data paths connecting those cells. Otherwise, it would not be a netlist as defined in Paragraph 58.

1 S. **“generating from the netlist the mask data required to produce an integrated**  
 2 **circuit having the desired function”**

3 65. The meaning of this phrase is: “producing, from the structural netlist, the detailed layout  
 4 level geometrical information required for manufacturing the set of photomasks that are used by the  
 5 processes that directly manufacture the application specific integrated circuit.” This definition is  
 6 consistent with the ordinary meaning of the phrase “mask data” and is also consistent with the minimal  
 7 information provided by the ‘432 patent specification on what is meant by “mask data” (‘432 patent:  
 8 Abstract; Fig. 1c; 1:42-44; 1:54-58; 2:44-49; 4:44-46; 5:40-46; 14:4-6; 16:34-68 [Attachment 2]).

9 66. Ricoh’s definition, which is: “producing from the netlist of hardware cells to be  
 10 included in the designed ASIC mask data which can be directly used by a chip foundry in the  
 11 fabrication of the ASIC” is not correct. First, Ricoh’s definition does not define “mask data.” Second,  
 12 “mask data” is only the information or data that can be used by other complex processes for making  
 13 photomasks for the designed application specific integrated circuit. Mask data cannot be used to  
 14 fabricate or manufacture an application specific integrated circuit.

15 T. **“generating data paths for the selected integrated circuit hardware cells”**

16 67. The meaning of this phrase is: “producing the necessary structural descriptions of the  
 17 data paths for the selected hardware cells.” This definition is consistent with the ordinary meaning and  
 18 is also consistent with the ‘432 patent specification (“‘432 patent: Abstract; 2:39-40; 4:63-66; 5:6-12;  
 19 5:30-37; 6:29-31; 6:37-43; 6:50-53; 9:62-10:9; 13:55-14:3; 16:34-17:3 [Attachment 2]).

20 68. Ricoh’s definition, which is: “producing signal lines for carrying data to the hardware  
 21 cells” is not correct. First, Ricoh’s definition ignores the claim language “for the selected integrated  
 22 circuit hardware cells.” Second, the processes of the ‘432 patent are for producing design data and not  
 23 the physical “signal lines for carrying data” (IEEE Standard Dictionary at 898 [signal line]  
 24 [Attachment 19]). As explained in Paragraphs 16-18, the ‘432 patent claims 13-17 encompass  
 25 computer-aided design processes for designing an ASIC and not manufacturing them.

1 U. **“said step of generating data paths comprises applying to the selected cells a set of**  
2 **data path rules stored in a knowledge base and generating the data paths**  
3 **therefrom”**

4 69. The meaning of this phrase is: “the generating step must be performed by at least an  
5 expert system having an inference engine for selectively applying a set of rules, each having an  
6 antecedent portion (IF) and a consequent portion (THEN), embodying the knowledge of expert  
7 designers for application specific integrated circuits, which enables the expert system to produce the  
8 necessary data paths for the mapped hardware cells.” This definition is consistent with the ‘432  
9 patent’s only adequately described system and dictated by the claim language in this claim and the  
10 patent applicant’s statements in the ‘432 patent’s file history (‘432 patent: Abstract; 5:6-12; 9:62-10:9;  
11 13:55-14:3 [Attachment 2]; ‘432 patent’s file history: April 1989 Amendment at 9-11, 15, 17; October  
12 1989 Examiner Interview Summary; November 1989 Amendment at 7, 9 [Attachment 3]; ‘435 patent:  
13 7:32-9:35 [Attachment 4]; An Overview of Logic Synthesis Systems: at 170 [Attachment 7]; The  
14 CMU Design Automation System: at 75-77 [Attachment 8]).

15 70. Ricoh’s definition provides: “wherein the step of producing signal lines for carrying  
16 data comprises applying rules, which are placed in computer memory, to produce the signal lines for  
17 carrying data to the hardware cells.” This definition is not correct and leaves out numerous  
18 requirements. First, Ricoh’s definition incorporates the same incorrect statements about the “data  
19 paths” from the definition of claim 15, which I explained in Paragraph 68. Second, Ricoh’s definition  
20 also fails to limit how the “mapping” is performed. Specifically, that the mapping must be  
21 accomplished using a rule-based expert system (‘432 patent’s file history: April Amendment at 10  
22 [Attachment 3]). Third, Ricoh’s definition is contrary to the ordinary meaning of “expert system” and  
23 the statements in the ‘432 patent’s file history because it fails to require that the applying of the “set of  
24 data path rules” in the knowledge base of the rule-based expert system is performed by that rule-based  
25 expert system’s inference engine. Fourth, Ricoh’s definition fails to require that the “rules” are stored  
26 in the knowledge base of the rule-based expert system.

V. **“generating control paths for the selected integrated circuit hardware cells”**

71. The meaning of this phrase is: “producing the necessary structural descriptions of the control paths for the selected hardware cells.” This definition is consistent with the ordinary meaning and is also consistent with the ‘432 patent specification (‘432 patent: Abstract; Figs. 1b & 13-15; 1:17-37; 2:40-42; 3:59-65; 4:39-43; 4:63-65; 5:3-12; 5:30-36; 6:18-27; 11:49-51; 13:51-14:3 [Attachment 2]).

72. Ricoh’s definition: “producing signal lines for carrying control signals to the hardware cells” is not correct. First, Ricoh’s definition ignores the claim language “for the selected integrated circuit hardware cells.” Second, the processes of the ‘432 patent are for producing design data and not physical “signal lines for carrying control signals.” As explained in Paragraphs 16-18, the ‘432 patent claims 13-17 encompass computer-aided design processes for designing an ASIC and not manufacturing them.

73. I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on July 13, 2004, at Summit, New Jersey.

/s/ Thaddeus J. Kowalski

Thaddeus J. Kowalski

**EXHIBIT 4**

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA

BEFORE THE HONORABLE MARTIN J. JENKINS, JUDGE

RICOH COMPANY, LTD.,  
PLAINTIFF,

VS.

AEROFLEX INCORPORATED,  
ET AL.,

DEFENDANTS.

NO. C 03-4469 MJJ  
C 03-2289 MJJ

WEDNESDAY, JUNE 14, 2004  
SAN FRANCISCO, CALIFORNIA

SYNOPSISYS, INC.,  
PLAINTIFF,

VS.

RICOH COMPANY, LTD.,

DEFENDANT.

REPORTER'S TRANSCRIPT OF TELEPHONIC PROCEEDINGS

APPEARANCES:

FOR RICOH

DICKSTEIN, SHAPIRO, MORIN &  
OSHINSKY, LLP  
2101 L STREET, NW  
WASHINGTON, DC 20037  
BY: KENNETH W. BROTHERS, ESQUIRE

(FURTHER APPEARANCE ON FOLLOWING PAGE)

REPORTED BY:

JOAN MARIE COLUMBINI, CSR 5435  
OFFICIAL COURT REPORTER

COMPUTERIZED TRANSCRIPTION BY ECLIPSE

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APPEARANCES CONTINUED:

FOR SYNOPSIS

HOWREY, SIMON, ARNOLD & WHITE, LLP  
301 RAVENSWOOD AVENUE  
MENLO PARK, CALIFORNIA 94025  
BY: THOMAS C. MAVRAKAKIS, ESQUIRE  
ERIK K. MOLLER, ESQUIRE

JOAN MARIE COLUMBINI, CSR  
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1 PROCEEDINGS; WEDNESDAY, JUNE 14, 2004

2

3 THE COURT: WHO DO I HAVE ON THE LINE?

4 MR. BROTHERS: THIS IS KEN BROTHERS WITH DICKSTEIN,  
5 SHAPIRO REPRESENTING RICOH.

6 MR. MAVRAKAKIS: AND TOM MAVRAKAKIS AND ERIK MOLLER  
7 OF HOWREY SIMON REPRESENTING SYNOPSYS AND THE DEFENDANTS.

8 THE COURT: ANYONE ELSE?

9 MR. BROTHERS: THERE'S NO ONE ON OUR END. THIS IS  
10 KEN BROTHERS.

11 MR. MAVRAKAKIS: YOUR HONOR, I DON'T KNOW IF WE  
12 HAVE A COURT REPORTER, BUT I'VE HOOKED UP THE ABILITY TO  
13 RECORD THIS IF YOU WISH, BUT I LEAVE THAT TO YOUR DISCRETION.

14 THE COURT: WE HAVE A REPORTER.

15 MR. MAVRAKAKIS: OKAY.

16 THE COURT: OKAY. THIS IS -- YOU SENT ME A LETTER  
17 DATED JULY 9TH, RAISING TWO SEPARATE, BUT I SUSPECT FROM YOUR  
18 VIEW, PROBABLY INTERRELATED ISSUES. ONE HAS TO DO WITH THE  
19 TUTORIAL THAT I'VE SCHEDULED. THE OTHER ONE HAS TO DO WITH  
20 THE CLAIMS CONSTRUCTION HEARING THAT I'VE SCHEDULED.

21 THERE SEEMS TO BE SOME MISUNDERSTANDING, AND  
22 PROBABLY BECAUSE, NORMALLY, WHEN I SET UP A CLAIMS  
23 CONSTRUCTION HEARING AND SET UP A SCHEDULE, THE TUTORIAL  
24 ASPECTS OF IT ALMOST ALWAYS INVOLVES THE PRESENTATION OF  
25 EXPERT TESTIMONY BUT NO QUESTIONING, NO EXAMINING, SAVE AND

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1 EXCEPT BY THE COURT.

2 AND, NORMALLY, WHAT I ASK FOR, AND THIS HAS WORKED  
3 FOR SEVEN YEARS, IS THAT THE PATENT AT ISSUE, THE PATENT THAT  
4 IS ALLEGEDLY INFRINGED, THAT YOU PROVIDE A TUTORIAL JUST  
5 EXPLAINING HOW THAT PRODUCT WORKS. THAT'S ALL. NO OTHER  
6 AUGMENTATION, NO REFERENCE TO ACCUSED PRODUCTS, NOTHING OF  
7 THAT NATURE. IT'S A VERY PLAINTIFF PRESENTATION.

8 ALL SIDES ARE PRESENT. IT'S NOT RECORDED. IT'S  
9 NOT -- NO RECORD IS MADE OF THAT, SAVE AND EXCEPT IF YOU WANT  
10 TO PRESENT SOME EXHIBITS THAT WOULD HELP ME FOLLOW THROUGH THE  
11 EXPLANATION OF HOW THE PRODUCT WORKS.

12 THAT'S ALL THAT HAPPENS AT THE TUTORIAL.

13 ARE THERE ANY QUESTIONS ABOUT THAT?

14 MR. BROTHERS: THIS IS KEN BROTHERS. NOT FOR US.  
15 WE UNDERSTOOD IT WOULD BE A NON-ADVERSARIAL PRESENTATION AT  
16 THE TUTORIAL THAT WOULD FOCUS ON THE PATENT IN SUIT.

17 MR. MAVRAKAKIS: AND, YOUR HONOR, THIS IS TOM  
18 MAVRAKAKIS. SO WOULD THAT MEAN THAT WE WOULD SPLIT TIME AND  
19 EACH SIDE WOULD HAVE --

20 THE COURT: WHY IS THERE A NEED TO SPLIT TIME?

21 YOU SEE, HERE'S THE ISSUE: IT'S NOT ADVERSARIAL.

22 MR. MAVRAKAKIS: OKAY.

23 THE COURT: TO THE EXTENT THAT YOU HAVE SOME  
24 CONCERN -- I GUESS THE POINT WOULD BE THIS: DO YOU THINK THAT  
25 YOUR -- YOU WANT TO PUT ON SOMEBODY WHO WILL EXPLAIN HOW THE

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1 PRODUCT WORKS, AND THAT'S GOING TO BE DIFFERENT THAN THE OTHER  
2 SIDE? THE PURPOSE OF IT IS NOT TO CREATE ISSUES. THE PURPOSE  
3 OF IT IS JUST TO WALK THROUGH HOW IT WORKS.

4 IS THERE A DISAGREEMENT ABOUT THAT?

5 MR. MAVRAKAKIS: WELL, I THINK THAT THERE MAY BE  
6 SOME DISAGREEMENT, YOUR HONOR --

7 THE COURT: WHAT IS IT?

8 MR. MAVRAKAKIS: -- BETWEEN THE PARTIES ABOUT WHAT  
9 THE PATENT DESCRIBES AND DISCLOSES.

10 THE COURT: NO, NO, WE'RE NOT TALKING ABOUT  
11 DISCLOSURES IN TERMS OF INTERPRETATION OF TERMS, JUST HOW IT  
12 WORKS. THAT'S ALL.

13 MR. MAVRAKAKIS: HOW THE --

14 THE COURT: IT'S A 3-D SORT OF DIMENSIONAL  
15 PRESENTATION VISUALLY OF HOW IT OPERATES.

16 MR. MAVRAKAKIS: WHEN YOU SAY "HOW IT OPERATES,"  
17 YOU'RE REFERRING TO THE EMBODIMENT IN THE PATENT?

18 THE COURT: I'M REFERRING TO HOW WHATEVER THE  
19 PATENT TEACHES, HOW THAT ACTUALLY IN THREE-DIMENSIONAL REAL  
20 TIME WORKS. NOTHING MORE.

21 I THINK YOU HAVE A DIFFERENT VIEW OF WHAT  
22 TRANSPIRES AT THE TUTORIAL. THIS IS NOT A PLACE TO ARGUE  
23 WHETHER OR NOT THE LANGUAGE IN CLAIMS CAN BE INTERPRETED IN  
24 DIFFERENT WAYS. THAT'S FAR REMOVED FROM WHAT I'M ACTUALLY  
25 GOING TO SEE.

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1                   MANY TIMES, FOR EXAMPLE, YOU KNOW, I'VE HAD PATENTS  
2    THAT INVOLVE THE SELECTION OF ICONS AND THE STORING OF  
3    INFORMATION OF DATA, AND THEY JUST BRING IN A PRESENTATION  
4    THAT SHOWS VISUALLY HOW THE PATENT DOES THAT, NOTHING MORE.

5                   MR. MAVRAKAKIS: AND YOU'RE SAYING THAT SHOULD BE  
6    DONE BY THE PLAINTIFF AND NOT DEFENDANT?

7                   THE COURT: THAT'S NORMALLY HOW IT'S DONE. BUT IF  
8    YOU WANT TO PUT ON SOMETHING THAT ESTABLISHES, IN YOUR VIEW,  
9    HOW IT WORKS, SO BE IT. I CAN'T SEE WHERE THERE SHOULD BE  
10   SIGNIFICANT DISPARITIES FOR THAT.

11                  MR. MAVRAKAKIS: MAYBE THE PARTIES SHOULD MEET AND  
12   CONFER AND TRY TO COME UP --

13                  THE COURT: NORMALLY, THEY DO. NORMALLY, THEY MEET  
14   AND CONFER AND SHOW EACH OTHER WHAT THEIR RESPECTIVE SIDE IS  
15   GOING TO PUT ON.

16                  MR. MAVRAKAKIS: OKAY. SO YOU ENVISION SOMETHING  
17   LIKE A POWER POINT PRESENTATION THAT JUST SHOWS --

18                  THE COURT: THAT'S WHAT PEOPLE HAVE DONE IN THE  
19   PAST. I DON'T KNOW ABOUT THIS PATENT. I DON'T KNOW WHAT THE  
20   BEST WAY WOULD BE. BUT THAT'S WHAT PEOPLE HAVE DONE IN THE  
21   PAST SEVEN YEARS I HAVE BEEN HERE, WITHOUT INCIDENT.

22                  MR. MAVRAKAKIS: RIGHT. I UNDERSTAND THAT, YOUR  
23   HONOR.

24                  THE COURT: I DON'T KNOW THAT YOU DO, BUT IF  
25   THERE'S A PROBLEM -- I MEAN, IT STRIKES ME THAT THE PRESENTING

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1 SIDE -- I'M NOT SAYING YOU CANNOT. IF YOU WANT TO PRESENT  
2 SOMEONE WHO WILL ARTICULATE HOW THE PRODUCT WORKS, THE PATENT  
3 IN SUIT, SO BE IT. I DON'T HAVE A PROBLEM WITH THAT. BUT  
4 EACH OF YOU SHOULD EXCHANGE PRIOR IN TIME WHAT IT IS YOU PLAN  
5 TO PRESENT AND THE INDIVIDUAL WHO IS GOING TO MAKE THE  
6 PRESENTATION SO THAT YOU'RE FAMILIAR WITH IT. I THINK THAT'S  
7 FINE.

8 MR. MAVRAKAKIS: OKAY. I MEAN, I THINK -- YEAH, I  
9 MEAN, I THINK THAT'S WHAT I ENVISIONED AT THE CLAIM  
10 CONSTRUCTION TUTORIAL, IS EACH SIDE WOULD HAVE AN EXPERT  
11 PRESENT BACKGROUND INFORMATION ABOUT THE PATENT EMBODIMENT,  
12 HOW IT WORKS.

13 AND WE'RE CERTAINLY WILLING TO MEET AND CONFER WITH  
14 THE OTHER SIDE AND COME TO SOME SORT OF AGREEMENT AS TO A  
15 SCHEDULE FOR EXCHANGING OUR RESPECTIVE PRESENTATIONS, AND AT  
16 THAT TIME WE COULD EVEN MEET AND CONFER AND TRY AND SEE IF  
17 MAYBE WE CAN AGREE TO ONE PRESENTATION. DOES THAT SOUND --

18 THE COURT: I HAVE NEVER HAD THAT PROBLEM BEFORE,  
19 WHAT YOU'RE RAISING. NO ONE HAS EVER TURNED THIS INTO AN  
20 ADVERSARY SORT OF ISSUE-ORIENTED PRESENTATION, BUT IF THAT'S  
21 WHAT YOU WANT TO DO, I DON'T HAVE A PROBLEM WITH IT.

22 ALL I WANT TO DO IS GET A BETTER UNDERSTANDING SO  
23 YOU DON'T HAVE TO SPEND AN HOUR OR TWO IN YOUR PRESENTATION AT  
24 THE CLAIMS CONSTRUCTION HEARING SHOWING ME YOUR VIEW OF HOW IT  
25 WORKS.

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1 MR. MAVRAKAKIS: I UNDERSTAND.

2 THE COURT: THAT'S WHAT IT INTENDS TO OBVIATE.

3 NOW, THE SECOND PROBLEM OR THE SECOND ISSUE -- LET  
4 ME JUST GIVE YOU SORT OF MY GENERAL RULES OF HOW THESE THINGS  
5 OCCUR.

6 FIRST, I HAVE NEVER AND DON'T ANTICIPATE HAVING  
7 LIVE WITNESS TESTIMONY FROM ANY EXPERT AT A CLAIMS  
8 CONSTRUCTION HEARING.

9 MR. MAVRAKAKIS: OKAY.

10 THE COURT: SECONDLY, IT'S DIFFICULT -- AND THIS IS  
11 PROBABLY WHERE THE AMBIGUITY CAME IN. IT'S ALWAYS DIFFICULT  
12 FOR ME TO TELL WHETHER I'M GOING TO NEED TO HAVE EXPERT  
13 DECLARATIONS, THE USE OF EXTRINSIC EVIDENCE IN CONSTRUING THE  
14 TERMS OF THE PATENT. IT'S HARD TO KNOW THAT WITHOUT DELVING  
15 INTO THE BRIEFS, WHICH I'M NOT ABLE TO DO THAT WHEN I SET THE  
16 SCHEDULE.

17 SO, NORMALLY, WHAT I DO IS SET IT UP SO THAT IF YOU  
18 FOLKS REALLY DRIVE THE VEHICLE, IF YOU FEEL THAT THERE'S GOING  
19 TO BE A NEED FOR EXPERT TESTIMONY, YOU DISCLOSE THE EXPERTS  
20 WHO ARE GOING TO TESTIFY WITH RESPECT TO THE CLAIMS IN  
21 DISPUTE. YOU NORMALLY TAKE THOSE DEPOSITIONS PRIOR IN TIME SO  
22 EACH SIDE HAS HAD A CHANCE TO EXAMINE THOSE EXPERTS. THEN YOU  
23 SUBMIT DECLARATIONS, WRITTEN DECLARATIONS, WHICH I THEN WILL  
24 DETERMINE WHETHER I CAN CONSIDER OR NOT, BUT NO LIVE  
25 TESTIMONY, NO LIVE EXAMINATION. THAT'S DONE IN DEPOSITIONS

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1 PRIOR IN TIME.

2 MR. MAVRAKAKIS: YOUR HONOR --

3 THE COURT: SO IT WAS NOT YOUR FAULT. THERE'S SOME  
4 BUILT-IN AMBIGUITY, BECAUSE AT THE TIME THAT THE HEARING IS  
5 SET, REALLY UP TO TWO OR THREE WEEKS BEFORE THE HEARING, I  
6 HAVEN'T READ THE BRIEFS, SO I CAN'T MAKE THAT DETERMINATION.  
7 IT'S NOT YOUR FAULT. BUT THAT'S HOW I CONDUCT THEM.

8 MR. MAVRAKAKIS: YOUR HONOR, THIS IS TOM  
9 MAVRAKAKIS. COULD I ASK A QUESTION OF CLARIFICATION?

10 THE COURT: SURE.

11 MR. MAVRAKAKIS: THE THING THAT I GET CONCERNED  
12 ABOUT, AND I'VE DONE A FEW OF THESE UNDER THE LOCAL RULES, IS  
13 THAT, YOU KNOW, THE JOINT CLAIM CONSTRUCTION CHART IS SUPPOSED  
14 TO SET OUT THE RECORD.

15 THE COURT: RIGHT.

16 MR. MAVRAKAKIS: -- THAT BOTH PARTIES HAVE  
17 EVERYTHING THEY NEED TO WRITE THEIR BRIEFS.

18 AND WHAT HAS HAPPENED IS THAT THE WORDS OF THE  
19 RULES SAY TESTIMONY AT THE CLAIM CONSTRUCTION HEARING -- AND,  
20 YOU KNOW, I'VE LIVED AND BEEN SANDBAGGED, YOU KNOW, TWO WEEKS  
21 BEFORE MY OPPOSITION IS DUE WITH THE 50-PAGE EXPERT  
22 DECLARATION, AND THEN, YOU KNOW, THE PARTY IS TELLING ME THAT,  
23 WELL, THE EXPERT IS NOT AVAILABLE, AND THEN I HAVE TO FILE MY  
24 OPPOSITION WITHOUT HAVING THE CHANCE TO, YOU KNOW, TAKE THE  
25 DEPOSITION OF THIS EXPERT THAT'S NOW FILED A 50-PAGE

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1 DECLARATION.

2 THE COURT: I DON'T KNOW WHERE YOU HAVE BEEN. I  
3 WOULDN'T ALLOW THAT TO HAPPEN. THERE WOULD BE NO SANDBAGGING.

4 MR. MAVRAKAKIS: OKAY. BECAUSE THE RULE SAYS --

5 THE COURT: IT DOESN'T MATTER WHAT THE RULE SAYS.  
6 I KNOW WHAT THE RULE SAYS. I'M TELLING YOU HOW I DO IT.

7 MR. MAVRAKAKIS: OKAY.

8 THE COURT: IT'S NOT EFFICIENT TO TAKE LIVE WITNESS  
9 TESTIMONY IN A CLAIMS CONSTRUCTION HEARING WHEN YOU FOLKS CAN  
10 DO THAT UP FRONT.

11 I UNDERSTAND YOU HAVE CONCERNS, AND THEY MAKE SENSE  
12 TO ME, ABOUT THE TIMING OF GETTING INFORMATION TO MAKE SURE  
13 YOU'VE HAD A CHANCE TO REALLY FULLY EXAMINE THE OPINIONS THAT  
14 ARE GOING TO BE GIVEN AND THE BASIS THEREFORE. AND, NORMALLY,  
15 WHAT HAPPENS IS ONCE YOU GET A CHANCE TO SEE WHAT THE DISPUTED  
16 TERMS ARE, WHAT THE BASIS IN THE PATENT IS FOR THE PROPOSED  
17 CLAIMS INTERPRETATIONS, WHETHER OR NOT, YOU KNOW, THAT WILL  
18 PEND ON EXPERT TESTIMONY OR NOT, THEN USUALLY THERE'S ENOUGH  
19 TIME IN THAT SCHEDULE FOR YOU TO TAKE THE DEPOSITIONS OF THOSE  
20 PEOPLE, ALSO, IF YOU FEEL LIKE YOU NEED TO, AND THAT'S WHAT I  
21 WOULD SUGGEST TO YOU IN THIS CASE.

22 BUT WE WOULDN'T BRING THOSE PEOPLE IN FOR LIVE  
23 WITNESS TESTIMONY ON TOP OF WHAT THEY'VE ALREADY PUT IN THEIR  
24 REPORTS. I JUST DON'T KNOW WHETHER THAT'S GOING TO BE NEEDED  
25 OR NOT, YOU KNOW. IT'S DIFFICULT FOR ME TO TELL YOU THAT, BUT

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1 I CAN TELL YOU, DESPITE WHAT THE LOCAL RULE SAYS, THAT THE  
2 EXCHANGE OF EXPERT OPINIONS AND REPORTS AND DEPOSITIONS OUGHT  
3 TO OCCUR PRIOR IN TIME.

4 MR. MAVRAKAKIS: SO ACCORDING -- SO, IN OTHER  
5 WORDS, THE EXPERTS' SUMMARY OPINIONS, EVEN IF THE EXPERT  
6 TESTIMONY IS GOING TO BE PROVIDED IN WRITTEN FORM ONLY IN  
7 DECLARATION, SHOULD BE EXCHANGED AT THE TIME OF THE JOINT  
8 CLAIM CONSTRUCTION CHART?

9 THE COURT: I THINK YOU SHOULD -- WE BUILD THAT IN  
10 SO NOBODY IS SANDBAGGED.

11 MR. BROTHERS: YOUR HONOR, THIS IS KEN BROTHERS. I  
12 GUESS I'M A LITTLE BIT UNCLEAR WITH RESPECT TO THE TIMING FOR  
13 THE WHOLE PROCESS.

14 YOU HAD EARLIER REFERENCED THAT SOME OF THESE, THE  
15 EXPERT DECLARATIONS, BE PROVIDED IN CONJUNCTION WITH THE  
16 BRIEFING SCHEDULE, WHICH IS IN LATE AUGUST AND SEPTEMBER, BUT  
17 IS IT YOUR -- THE COURT'S DESIRE THAT --

18 THE COURT: IT STRIKES ME THAT IF YOU'RE GOING TO  
19 RELY -- AND I JUST DON'T KNOW, BUT IF -- IS IT SAFE TO ASSUME  
20 THAT EACH OF YOU BELIEVES THAT THE COURT NEEDS TO RESORT TO  
21 EXTRINSIC EVIDENCE INCLUDING THE OPINIONS OF EXPERTS TO  
22 CONSTRUE THE TERMS HERE?

23 MR. BROTHERS: WELL, RICOH HAD UNDERSTOOD YOUR  
24 EARLIER COMMENTS TO BE THAT THE COURT WOULD NOT RECEIVE EXPERT  
25 TESTIMONY AT THE CLAIM CONSTRUCTION HEARING.

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1 THE COURT: I NORMALLY DON'T.

2 MR. BROTHERS: BECAUSE OF THAT, WE WERE PROCEEDING  
3 TO CONSTRUE THE CLAIMS WITHOUT RELIANCE UPON AN EXPERT, WHEN  
4 IT BECAME CLEAR TO RICOH THAT SYNOPSYS AND THE DEFENDANTS WERE  
5 INTENDING TO PROVIDE EXPERT TESTIMONY, AND WE IDENTIFIED THE  
6 DIFFERENCE IN OPINIONS BECAUSE IT WAS --

7 THE COURT: LET ME JUST -- MAYBE IT'S MORE  
8 FUNDAMENTAL THAN EVEN I THINK. VICTRONICS SAYS THE COURT  
9 DOESN'T GO TO THAT EVIDENCE IF IT DOESN'T HAVE TO.

10 MR. BROTHERS: THAT'S CORRECT.

11 THE COURT: SO THAT'S MY RULE OF THUMB, THAT THERE  
12 HAS TO BE A SHOWING AS TO WHY THE COURT CAN'T CONSTRUE THE  
13 TERMS BASED ON THE INTRINSIC EVIDENCE. WE DON'T GO TO  
14 EXTRINSIC EVIDENCE UNLESS THAT'S NECESSARY.

15 MR. BROTHERS: IT WOULD BE RICOH'S VIEW THAT NO  
16 EXTRINSIC EVIDENCE WOULD BE NECESSARY; HOWEVER, IF OUR --

17 THE COURT: THEN LET'S DO THIS THEN: I THINK THIS  
18 IS THE ONLY WAY TO RESOLVE IT, AND IT WILL SAVE YOU FOLKS SOME  
19 TIME AND MONEY.

20 I'M NOT GOING TO RECEIVE ANY EXPERT TESTIMONY ON  
21 CONSTRUCTION OF THESE TERMS. IF ONCE I GET INTO THE BRIEFS  
22 AND IN THE HEARING IT APPEARS TO ME I NEED THAT ASSISTANCE,  
23 I'LL SET UP A TIME FOR THAT.

24 MR. BROTHERS: VERY GOOD, YOUR HONOR.

25 MR. MAVRAKAKIS: YOUR HONOR, THIS IS TOM

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1 MAVRAKAKIS. I THINK THAT THERE -- AND OUR POSITION IS THAT  
2 THERE ARE TERMS OF ART IN THIS PATENT THAT DO REQUIRE  
3 TESTIMONY AND EXTRINSIC EVIDENCE.

4 THE COURT: YOU MIGHT BE RIGHT, BUT I'M NOT GOING  
5 TO MAKE THAT DETERMINATION TODAY. I'LL HAVE TO READ THE  
6 BRIEFS MYSELF AND SEE IF I COME TO THAT CONCLUSION.

7 MR. MAVRAKAKIS: I UNDERSTAND THAT.

8 THE COURT: THAT WILL SAVE YOU GUYS SOME TIME AND  
9 EFFORT.

10 MR. MAVRAKAKIS: AND THERE'S SOME CASE LAW THAT  
11 SAYS WHEN YOU HAVE TERMS OF ART, THAT IT'S ERROR NOT TO  
12 CONSIDER THIS EXPERT TESTIMONY TO MAKE SURE.

13 THE COURT: WHAT ARE YOU TRYING TO TELL ME? WHAT  
14 ARE YOU TRYING TO TELL ME? I HAVE NOT -- YOU CONTINUE TO  
15 ENGAGE IN THIS MANTRA, AND I'VE TOLD YOU I HAVEN'T READ THE  
16 BRIEFS. YOU MAY BE RIGHT. I MAY HAVE TO PULL IT OFF THE  
17 TABLE AND SAY, YOU KNOW, HE'S ABSOLUTELY RIGHT, IT'S A TERM OF  
18 ART, I NEED ASSISTANCE, BUT I CAN'T DO THAT TODAY.

19 MR. MAVRAKAKIS: MY ONLY CONCERN, YOUR HONOR, IS  
20 THAT I INTEND TO SUBMIT A DECLARATION. SO MY CONCERN IS THAT  
21 EVERYTHING IS ON EQUAL FOOTING SO IF WE HAVE TO --

22 THE COURT: I'M TELLING YOU NOW I'M NOT GOING TO  
23 CONSIDER IT UNTIL I SEE A NEED FOR IT. YOU MAY BE DOING THAT,  
24 AND IT MAY BE IRRELEVANT.

25 MR. MAVRAKAKIS: I UNDERSTAND THAT.

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1 THE COURT: OKAY.

2 MR. MAVRAKAKIS: I UNDERSTAND. I'D LIKE TO MAKE MY  
3 RECORD THAT WAY, BUT MY ONLY CONCERN IS THAT IF I'M GOING TO  
4 SEE AN EXPERT DECLARATION FROM THE OTHER SIDE, THAT I SEE IT  
5 IN A TIMELY MANNER.

6 THE COURT: YOU ARE THE ONE THAT'S SETTING THIS  
7 ISSUE UP BY DOING WHAT YOU THINK THE LAW SAYS YOU HAVE A RIGHT  
8 TO DO AND YOU NEED TO DO. BUT THE FACT OF THE MATTER IS IF I  
9 ULTIMATELY AGREE WITH YOU, THEN I WOULD HAVE TO GIVE THE OTHER  
10 SIDE SOME TIME TO RESPOND, AND, OF COURSE, YOU'D HAVE A CHANCE  
11 TO RESPOND TO WHAT THEY PROVIDE, AND IT JUST WILL ELONGATE THE  
12 PROCESS.

13 MR. BROTHERS: THIS IS KEN BROTHERS. WITH THE  
14 UNDERSTANDING THAT RICOH -- IF THE JUDGE FEELS THAT EXPERT  
15 TESTIMONY MAY BE NEEDED, THAT RICOH COULD BE GIVEN AN  
16 OPPORTUNITY TO RESPOND.

17 THE COURT: ABSOLUTELY.

18 MR. BROTHERS: YES, WE ARE PREPARED TO PROCEED AT  
19 PRESENT WITHOUT SUBMITTING ANY EXTRINSIC EVIDENCE AND  
20 PROCEEDING AS THE COURT SUGGESTED.

21 THE COURT: RIGHT. AND IF WE GET TO THAT ISSUE,  
22 THEN I'LL DEAL WITH IT IN A WAY THAT'S FAIR TO BOTH SIDES.

23 MR. MAVRAKAKIS: OKAY.

24 SO, YOUR HONOR, JUST ONE MORE POINT OF  
25 CLARIFICATION. IF I WANT TO PUT IN EXPERT TESTIMONY IN THE

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1 FORM OF A DECLARATION, THEN I SHOULD DO SO IN MY -- IN SUPPORT  
2 OF MY OPPOSITION.

3 THE COURT: IF THAT'S WHERE YOU THINK IT  
4 APPROPRIATELY GOES, SO BE IT. I TOLD YOU I'M NOT GOING TO  
5 CONSIDER IT IN THE FIRST INSTANCE, BUT YOU CAN SUBMIT IT.

6 MR. MAVRAKAKIS: OKAY.

7 THE COURT: ALL RIGHT.

8 MR. BROTHERS: THANK YOU, YOUR HONOR.

9 THE COURT: ALL RIGHT.

10 (PROCEEDINGS ADJOURNED.)

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